

Notice of Allowability

Application No.

10/587,708

Examiner

Nicholas Ponomarenko

Applicant(s)

SILCOCK ET AL.

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/28/2006.
2. ☒ The allowed claim(s) is/are 1-37.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>9/4/07</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Examiner's Amendment

1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. §1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the Issue Fee.
2. Authorization for this Examiner's Amendment was given in a telephone interview with Mr. Sumner C. Rosenberg (Reg. No. 28,753) on January 17, 2008.
3. The application has been amended as follows:

Amend claims 1, 9, 19, 20 and 28 as follows:

1. (Amended) A connector arrangement operative to connect a prime mover driven alternator to an existing alternating current circuit ~~[with an existing alternating current, wherein the connector arrangement includes]~~ comprising:
 - a circuit with an adjustable resonant frequency, adjustable between
 - a first resonant frequency tuned to
 - an initial operating frequency of the prime mover and
 - a second resonant frequency detuned ~~[to]~~ from the initial operating frequency.

In claim 9, line 4, replace word –around– with words “passing through”.

19. (Amended) A method of operating a connector arrangement connecting a prime mover driven alternator to generate an alternating current [circuit with an existing alternating current], the method comprising : [the steps of]
monitoring a parameter of the prime mover and
adjusting the resonant frequency of
a circuit of the connector arrangement between
a first resonant frequency tuned to
an initial operating frequency of the prime mover and
a second resonant frequency detuned [to] from the initial operating frequency
when the parameter passes through a threshold value.

20. (Amended) A method of connecting a prime mover driven alternator arranged to generate a current between two terminals [to] of an existing alternating current circuit [with an existing alternating current, the method] comprising [the steps of] :

(a) connecting an impedance of [such] a defined value between the terminals of the alternator that the prime mover arranged to drive the alternator [substantially] cannot move and cannot make the alternator generate a current;

(b) initializing the prime mover so that it is in a suitable condition to drive the alternator at the frequency of the alternating current in the circuit to which it is to be connected; and

(c) connecting the terminals of the alternator to [a] said existing current circuit with an existing alternating current to cause the alternator to start movement of the prime mover; and,

concurrent with steps (b) and (c), monitoring a parameter of the prime mover and adjusting the resonant frequency of a circuit between a first resonant frequency tuned to an initial operating frequency of the prime mover and a second resonant frequency detuned [to] from the initial operating frequency when the parameter passes through a threshold value.

28. (Amended) A method of disconnecting a prime mover driven alternator from an alternating current circuit with an existing alternating current comprising the steps of :

(a) connecting an impedance in parallel with the prime mover driven alternator, the impedance having a sufficiently low impedance value to require a current in excess of that which the alternator is able to deliver to prevent the prime mover from driving the alternator and thus stalling the prime mover; and

(b) disconnecting the alternator from the circuit with an existing alternating current; and,

concurrent with steps (a) and (b), monitoring a parameter of the prime mover and adjusting the resonant frequency of a circuit between a first resonant frequency tuned to an initial operating frequency of the prime mover and a second resonant frequency detuned [to] from the initial operating frequency when the parameter passes through a threshold value.

Reasons for Allowance

4. Claims 1-37 are allowed.

5. Examiner's Statement of Reasons for Allowance:

Applicant(s) invention relates to a control circuit for a generator, and more specifically, to a control scheme with an alternator driven by a Stirling engine.

The system controls allows adjusting resonant frequency between first resonant frequency, which is tuned to initial operating frequency and the second resonant frequency, which is detuned from the initial operating frequency, as disclosed.

There are inventions in the field that provide similar functionality and/or have similar features, as prior art of record shows. Applicant(s) invention differs from the prior art of record by the control scheme, which was interpreted by the examiner in view of the disclosure, which is performing as disclosed and claimed, and which examiner's

search failed to find.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Ponomarenko whose telephone number is (571) 272- 2033, Fax: (571) 273-2033, or to his SPE Darren Schuberg – (571) 272-2044.

8. Any inquiry of a general nature should be directed to the following places: Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

np.
January 17, 2008



Nicholas Ponomarenko
Primary Examiner
Technology Center 2800